Goals, Objectives, and Performance Measures

The *Goals, Objectives, and Performance Measures Report* presented the goals, objectives, and performance measures to support implementation of the MI Transportation Plan vision. The initial report documented the process, research, and analysis used to develop these elements and quantified the baseline performance of Michigan's transportation system. This white paper discusses the public attitudes and perceptions, continued support for the goals, and performance measures associated with achieving the desired outcomes.

Goals

Significant effort went into the development of the 2030 MI Transportation Plan. After extensive public involvement, four goals were identified to help make the vision a reality:

1. **System Improvement**: Modernize and enhance the transportation system to improve mobility and accessibility.
2. **Efficient and Effective Operations**: Improve the efficiency and effectiveness of the transportation system and transportation services, and expand MDOT's coordination and collaboration with partners.
3. **Safety and Security**: Continue to improve transportation safety and ensure the security of the transportation system.
4. **Stewardship**: Preserve transportation system investments, protect the environment, and utilize public resources in a responsible manner.

Objectives under each goal area were associated with three categories: 1) Integration, 2) Economic Benefit, and 3) Quality of Life. Each provided a tight link between the original MI Transportation Plan and MDOT's mission statement:

> *Providing the highest quality integrated transportation services for economic benefit and improved quality of life.*

The complete list of objectives may be found in the MI Transportation Plan *Goals, Objectives, and Performance Measures Report*.

Additional goals and performance measures for the Corridors of Highest Significance were also identified in the plan. These corridor goals were based on, and consistent with, the four system goals. The measures evaluated the objectives and desired system characteristics that were articulated during the plan development process conducted with the public workshops, the Economic Advisory Group, MDOT management, and MDOT staff. Additional goals for the Corridors of Highest Significance are:

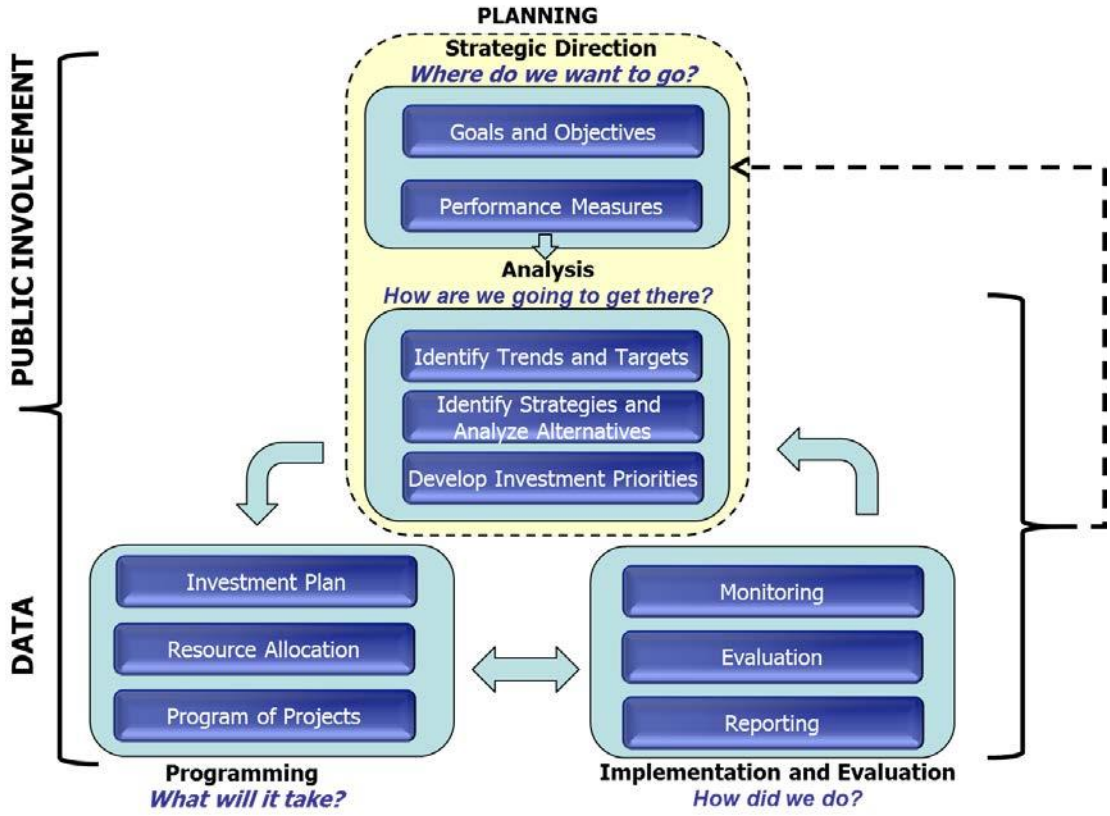
- Modal Choice, including access, system integration, and connectivity; and
- Freight Adequacy.

Moving Ahead for Progress in the 21st Century Act (MAP-21)

MAP-21, the Moving Ahead for Progress in the 21st Century Act (P.L. 112-141), was signed into law by President Obama on July 6, 2012. MAP-21 took effect October 1, 2012, following the adoption of the 2035 MI Transportation Plan.

In this two-year bill, the metropolitan and statewide transportation planning processes are continued and enhanced to incorporate performance goals, measures, and targets into the process of identifying needed transportation improvements and project selection. Public involvement remains a hallmark of the planning process. The long-range plan must describe the performance measures and targets used in assessing system performance and progress in achieving the performance targets. MAP-21 requires the use of a performance-based approach to decision-making and to support national goals, known as a performance-based planning program (PBPP). The MI Transportation Plan is recognized as a performance-based plan, as it includes 19 core performance measures and seven subordinate measures, and the plan is an important part of MDOT's performance-based process. The 2035 MI Transportation Plan is highlighted as a case study in the Federal Highway Administration (FHWA) publication: *Model Long Range Transportation Plans: A Guide for Incorporating Performance-Based Planning, August 2014*.

Figure 1: Framework for Performance-based Planning and Programming



Source: FHWA Performance-based Planning and Programming Guidebook, Page iv.

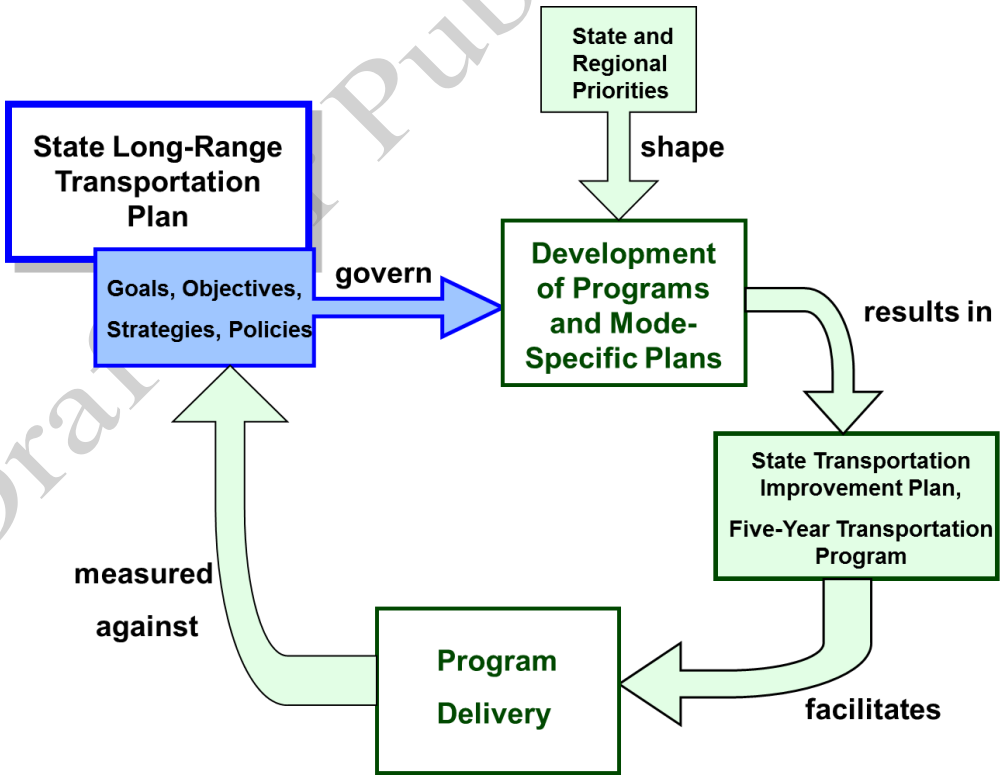
The development of a performance-based transportation plan encompasses all of the key elements shown in Figure 1 under "Planning." It includes the setting of a strategic direction ("where do we want to go?"), which encompasses goals and objectives and performance measures. MDOT uses PBPP as a tool to make the most efficient and effective use of available funds to meet the state's most critical transportation needs.

Performance-based Planning at MDOT

MDOT has actively implemented performance-based program development and asset management since 1997, when the State Transportation Commission (STC) established state trunkline pavement and bridge goals. MDOT's long history with performance measurement has enabled the department to develop robust measurement capabilities. Development of new goals, objectives, and performance measures started in earnest in spring 2006 with the development of the 2030 MI Transportation Plan. This included background research on MDOT's performance measurement history and determining needs and expectations for MI Transportation Plan performance measures.

This research included a review of current MDOT measures and analysis of findings from the public meetings, stakeholder meetings, and Economic Advisory Group discussions to identify the performance measurement interests of stakeholders and citizens. Figure 2 identifies the connection between planning and programming at MDOT.

Figure 2: Planning and Programming Framework at MDOT



Linkage is established first through goal-setting in the long-range plan. As discussed, the MI Transportation Plan is the policy document that provides strategic direction and decision principles for the development of transportation programs at all levels. It establishes the goals and strategies for the transportation system, as well as identifies critical issues and priorities.

Connected with department goals is investment planning. Investment strategies guide the allocation of capital resources to achieve the goals established. Investments are focused where they will most benefit the public consistent with the direction established. Dollars are assigned to program categories, such as road and bridge preservation, safety, and capacity improvements. MDOT has developed what is called an "investment template" that identifies the investment level for each program category over a multi-year and annual timeframe. This investment strategy is communicated to the organization during the annual integrated Call for Projects (CFP) process, which provides the mechanism for project selection. Strategic direction and funding targets provided in the call letter form the basis for project selection and prioritization.

The performance measures were determined using the system-wide goals and objectives, in addition to a set of selection criteria. The *Goals, Objectives, and Performance Measures Report* presents the four system-wide goals, their associated objectives, and the 12 selection criteria (a rationale) used to develop the system-wide performance measures.

National Goals and Performance Measures

The cornerstone of MAP-21's highway program transformation is the transition to a performance and outcome-based program. States will need to invest resources in projects to achieve individual targets that collectively will make progress toward national goals.

MAP-21 established seven national goals for federal highway programs:

- **Safety**: To achieve a significant reduction in traffic fatalities and serious injuries on all public roads;
- **Infrastructure condition**: To maintain the highway infrastructure asset system in a state of good repair;
- **Congestion reduction**: To achieve a significant reduction in congestion on the National Highway System (NHS);
- **System reliability**: To improve the efficiency of the surface transportation system;
- **Freight movement and economic vitality**: To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development;
- **Environmental sustainability**: To enhance the performance of the transportation system while protecting and enhancing the natural environment; and
- **Reduced project delivery delays**: To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

States must incorporate these national goals into their long-range transportation plans. These national goals align with the MI Transportation Plan goals and objectives. Each MI Transportation Plan goal has at least one objective for each element of the MDOT mission statement: integration, economic benefit, and quality of life. These three categories were intentionally chosen to provide a tight link between the state's long-range plan and the department's mission statement. The MI Transportation Plan goals and objectives are:

1. **System Improvement.** ***Modernize and enhance the transportation system to improve mobility and accessibility.*** The System Improvement Goal emphasizes the various areas where MDOT can either make direct investments or support and encourage investments by other entities to improve the efficiency and effectiveness of Michigan's transportation system. The objectives under the System Improvement Goal focus on improvements to modernize, expand, and connect the system to support economic growth and better facilitate the movement of goods, people, and services. The goal area also identifies the importance of considering local values during the planning, design and implementation of system improvements.

Table 1: System Improvement Objectives

Objective Category	Objectives
Integration	Expand intermodal connectivity and the number of modal options for freight and passengers.
	Address system bottlenecks and weaknesses to reduce congestion, enhance continuity, and improve modal connections.
Economic Benefit	Improve travel time reliability and predictability for passengers and freight.
	Modernize facilities to accommodate the efficient movement of people, goods, and services.
	Address congestion to reduce its cost to businesses and the state's economy.
	Respond to the unique transportation needs of economic development opportunities.
Quality of Life	Expand transportation system access.
	Reduce delay.
	Employ context sensitive solutions to respond to the values that the public places on aesthetics, cultural resources, and natural landscapes.

2. **Efficient and Effective Operations.** ***Improve the efficiency and effectiveness of the transportation system and transportation services, and expand MDOT's coordination and collaboration with partners.*** The Efficient and Effective Operations Goal reflects MDOT's desire to get the greatest possible performance from Michigan's existing transportation assets and future system improvements. The goal area also addresses the importance of operating a transportation system and providing services to ensure citizens and stakeholders have modal choices. The recommended objectives under this area focus on the application of technology, stronger coordination and cooperation with public and private sector partners, and improved intermodal transfers.

Table 2: Efficient and Effective Operations Objectives

Objective Category	Objectives
Integration	Improve existing system capacity through the application of new technologies and strategies.
	Coordinate transportation services supplied by both public and private sector providers.
	Address institutional barriers to inter-jurisdictional cooperation.
Economic Benefit	Collaborate with providers to deliver programs and services better, cheaper, and faster.
	Manage highway access to balance capacity and development considerations.
	Collaborate with the private sector to improve the efficiency of intermodal freight and passenger transfers.
Quality of Life	Enhance the transportation experience through better, timelier traveler information.
	Operate systems to ensure the public has an adequate set of transportation choices.

3. **Safety and Security.** ***Continue to improve transportation safety and ensure the security of the transportation system.*** The Safety and Security Goal continues MDOT's long-standing commitment to build, maintain, and operate the safest transportation system possible. The objectives under the Safety and Security Goal emphasize both traditional safety initiatives aimed at reducing fatalities, injuries, and crashes/incidents, as well as efforts to address new transportation system security needs and increased threat from terrorism.

Table 3: Safety and Security Objectives

Objective Category	Objectives
Integration	Reduce fatality, injury, and crash/incident rates on all modes.
	Reduce the vulnerability of transportation facilities and its users to terrorist attacks, natural disasters and other risks.
Economic Benefit	Reduce economic losses due to transportation crashes and incidents.
	Manage risks and responsiveness to ensure transportation system and border crossing continuity for passengers and freight.
Quality of Life	Provide a safe environment for transportation users through engineering, enforcement, and education activities.

4. **Stewardship.** ***Preserve transportation system investments, protect the environment, and utilize public resources in a responsible manner.*** The Stewardship Goal focuses on MDOT's roles and responsibilities associated with being good stewards of Michigan's resources. The goal is based on a holistic view of resources, to include funding, physical transportation assets (e.g., highways, transit systems, and airports), the physical and human environment, and the Michigan economy. The objectives under the Stewardship Goal incorporate issues and topics that were identified during the development process: Preservation, Strengthening the State's Economy, Transportation Services Coordination, Environment and Aesthetics, and Land Use Coordination.

Table 4: Stewardship Objectives

Objective Category	Objectives
Integration	Preserve the quality and condition of all transportation system elements.
Economic Benefit	Conduct sound asset management practices to optimize the benefits of preservation investments.
	Leverage transportation funding to maximize transportation investment.
	Maximize the benefits of transportation investment to the Michigan economy.
Quality of Life	Minimize negative externalities and maximize the positive impacts that transportation has on the physical and human environment.
	Improve coordination between transportation decision-making and land use planning.

Goals and objectives are the desired outcomes or changes to the transportation system determined through the 2030 MI Transportation Plan development public workshops, Economic Advisory Group (EAG) meetings, and MDOT management direction. The system-wide objectives for each goal are grouped into three categories of Integration, Economic Benefit, and Quality of Life. These objectives apply to all system users and modes. These objectives are reaffirmed for the 2040 MI Transportation Plan.

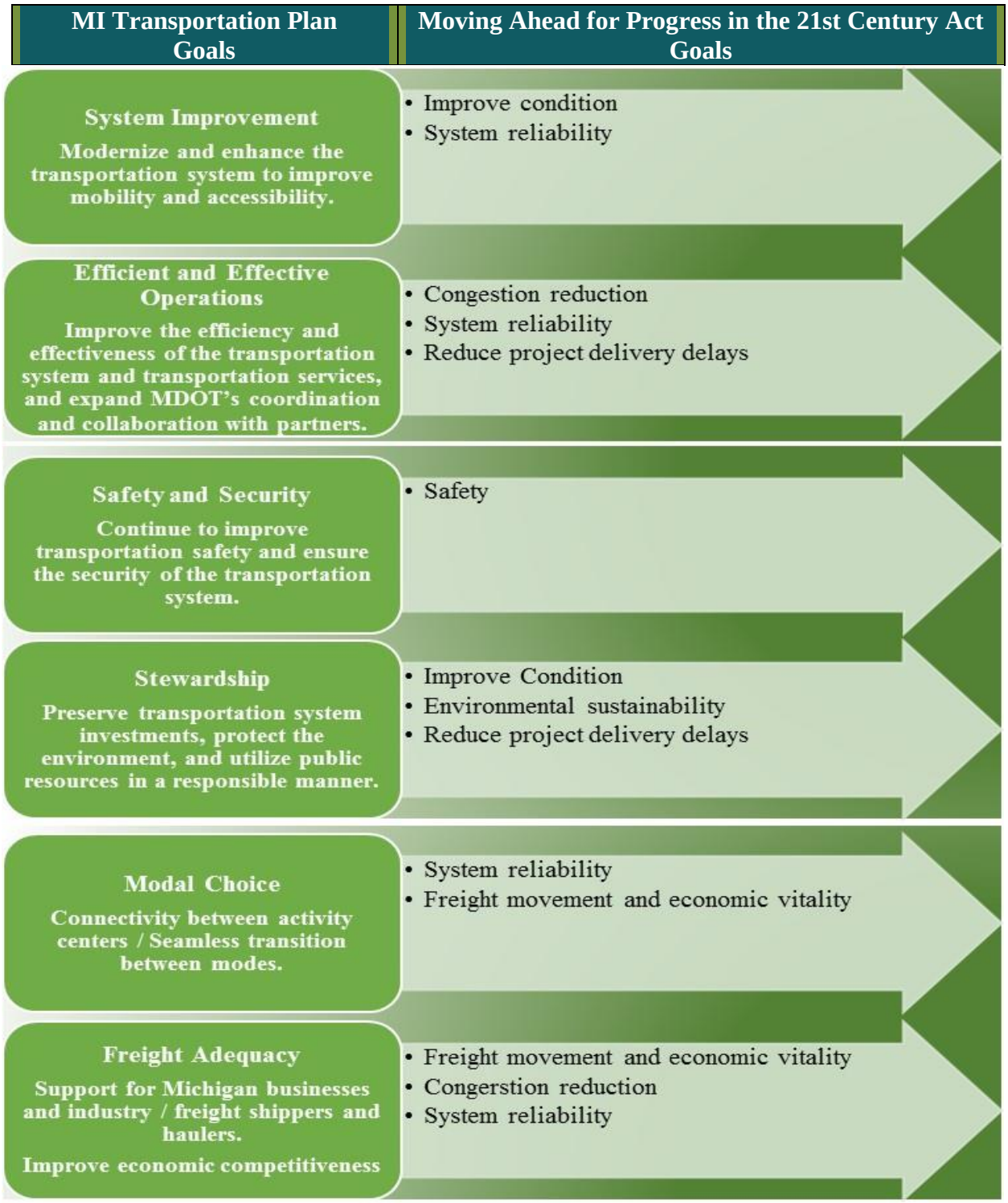
In addition, corridor-specific goals, objectives, and rationale were developed. The corridor-specific objectives include modal choice and freight adequacy. These corridor goals and objectives reflected the desired system characteristics that were articulated during the MITP plan development process.

Table 5: Corridor-specific Goals, Objectives, and Rationale

Goal	Objectives	Rationale
Modal Choice	Providing choices for user segments	Users can select the mode that provides the best service time, least cost and highest reliability.
	Providing connectivity between modes	Users are not prohibited or deterred from using a mode because of difficulty in transferring.
	Connectivity between activity centers / Seamless transition between modes	Users can easily access or move to and between all activity centers within and outside of Michigan. Transferring goods or people between rail, air, water, and roadways should take place with the least possible amount of delay and cost so that each segment can minimize the cost of travel.
Freight Adequacy	Support for Michigan businesses and industry / freight shippers and haulers	The economic base of Michigan includes manufacturers, agricultures, forest products, and retailers - each of whom ship and receive goods traveling on Michigan's transportation system. Businesses and industry should expect a system that is safe and designed and maintained to modern standards. Michigan is one of the leading states for national and international trade. The nation depends on Michigan's transportation system.
	Improve economic competitiveness	A safe, well-designed system reduces a business or industry's transportation cost.

Source: Corridors and International Borders Report

Figure 3: Alignment of MI Transportation Plan Goals with MAP-21 National Goal Areas



In accordance with MAP-21 requirements, the United States Department of Transportation (USDOT) will provide state departments of transportation and Metropolitan Planning Organizations (MPOs) with national performance measures to collect and report on through a series of rulemakings. As of September 2015, final rules have not been issued. Changes in federal requirements for long-range transportation plans will take effect, with the first plan adoption deadline following the USDOT's adoption of the final rules governing performance-based planning and performance management. The first plan adoption deadline will be defined in the final rule for Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning.

Aligning with MAP-21

MDOT and FHWA held a Transportation Planning Capacity Building Peer Exchange: Establishing and Integrating Performance Measures in April 2015. Its purpose was to strengthen the collaborative processes between MDOT, MPOs, and transit agencies, and develop action plans for the collaborative process to establish performance targets to meet national goals and measures.

Performance measures and targets are required for:

- Pavement condition on the Interstate System and on remainder of the National Highway System (NHS);
- Performance of the Interstate System and the remainder of the NHS;
- Bridge condition on the NHS;
- Fatalities and serious injuries - both number and rate per vehicle mile traveled - on all public roads;
- Traffic congestion;
- On-road mobile source emissions; and
- Freight movement on the Interstate System.

The MI Transportation Plan establishes the framework for performance-based planning that addresses state investment strategies. This framework will be used by MDOT to address national goals in a manner that can readily be monitored and reported. This framework is based on MDOT's Corridors of Highest Significance (COHS) that are, by definition, multi-modal. MDOT's performance measures account for modal differences, as well as evaluate system integration. Aligning to the national goals and measures, which focus on the Interstate and NHS, will require an adjustment to the MDOT COHS strategy approach.

Performance Measures and Monitoring

MDOT tracks the measures through a number of tools and reports. MDOT also has developed the Transportation System Condition Report to provide data on the condition and performance of Michigan's publicly-owned transportation system. The measures in this report support and are organized around the four major goal areas of the MI Transportation Plan: Stewardship, Safety and Security, System Improvement, and Efficient and Effective Operations.

The Transportation System Condition Report is just one way the department fulfills its commitment to accountability. MDOT also provides the public with a number of reports and scorecards that track the department's performance in achieving specific department and transportation-related goals. These include:

MDOT's Scorecard
Efficiencies and Innovations
Bridge Maintenance Reports
Driven By Excellence: A Report on MDOT Accomplishments
Five-Year Transportation Program

Michigan's dashboard, Mi Dashboard, implemented by Gov. Rick Snyder, provides a quick assessment of the state's performance in key areas, including: economic strength, health and education, value for money government, quality of life, and public safety. The Mi Dashboard component includes two transportation-related performance indicators: bridge condition, and traffic and safety. The Infrastructure Dashboard component provides a way for the public to track the progress of many key infrastructure elements important to them.

In an effort to get more robust information, MDOT started purchasing probe data from HERE (formally Navteq) in 2009. Probe data is speed information collected from a variety of electronic devices, including but not limited to commercial fleet tracking systems, smartphones, GPS and in-car navigation systems. Probe data also can be enhanced with data from the in-field devices that MDOT already owns to improve the accuracy of this data. With the introduction of probe data feeds, MDOT now is able to monitor freeway speeds 24 hours a day.

MDOT uses the Regional Integrated Transportation Information System (RITIS) developed by the University of Maryland Center for Advanced Transportation Technology Lab to utilize the probe data, monitor performance and estimate the conditions of the freeway system. *The Congestion & Mobility Report* compares 2012 and 2013 conditions on the system.

Corridor system performance also has been updated and may be found in the Corridors and International Border White Paper companion document *MITP Corridors of Highest Significance - Performance Measures*.

The Transportation Asset Management Council maintains six dashboards that allow Michigan's 617 road agencies to compare themselves to other agencies within the state. Three of these dashboards can currently be used to set performance goals and then measure the progress toward those goals. The other three dashboards, Traffic, Maintenance and Finance, contain data that can be used to develop and measure additional performance goals. These dashboards are updated annually as the information becomes available.

Conclusion

The transportation planning process historically defines goals and objectives, identifies problems, generates alternatives, evaluates alternatives, and develops plans. The goals and objectives of the MI Transportation Plan reflect the public's vision for Michigan's transportation system. The goals and objectives continue to guide MDOT's performance-based planning and management approach that includes setting clear policies and objectives, tracking performance data and trends, and forecasting to make planning and policy decisions. MDOT uses performance standards and measures to guide and evaluate its annual investment in the transportation system.

Because of the framework that is in place, MDOT has been able to deliver its program consistently, even with changes in administration, organizational shifts due to retirements and new staff, and budget adjustments. This framework also aligns closely with the performance management requirements included in MAP-21.

The planning and programming connection did not come about overnight. Rather, it has been a process that has evolved over many years. It requires commitment at the highest leadership levels, support throughout the organization, teamwork with MDOT's partners, stakeholders and the public, and continuous two-way communication and monitoring.

The MI Transportation Plan is a corridor-based policy plan, whose strategies and actions are general (as opposed to project-specific or region-specific) and can remain relevant over time. This holds true even if unanticipated changes occur or if the planning horizon changes. The strategies and actions outlined in the plan closely follow the strategic goals and standards set forth by MDOT at all levels, including the four goal areas developed as part of the 2030 MI Transportation Plan, retained in the 2035 MI Transportation Plan, and now included in the 2040 MI Transportation Plan.